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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,229	08/21/2006	Grant Chapman Ewan	45669/330298	3785

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EXAMINER

ORMAN, DARREN W

ART UNIT	PAPER NUMBER
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3752

MAIL DATE	DELIVERY MODE
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10/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,229

Applicant(s)

EWAN, GRANT CHAPMAN

Examiner

Darren W. Gorman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDougall, USPN 3,072,137 in view of Aghnides, USPN 4,534,513, and Walker, USPN 3,485,454.

McDougall shows a dosing device (see Figures 1-3) comprising: a body (10, 16, 25) having a main flow conduit defined therethrough for conveying a pressurized water stream from a first inlet (11) to an outlet; a zone (37) of reduced cross-section between the inlet and the outlet; a passage (40) in the body intersecting the main flow conduit and extending to atmosphere; a control valve (42, 43, 44) being operable such that when the water stream is to be dosed with a dosing liquid, the control valve closes the passage such that a relatively low pressure is generated in the zone of reduced cross-section when the water stream flows from the first inlet to the outlet through the zone; and a second inlet (47) including an inlet spigot (50) to which a dosing liquid conduit extending from a source of dosing liquid can be connected, the second inlet being located in the body and intersecting the main flow conduit and through which the dosing liquid can be drawn from the source of dosing liquid via the dosing liquid conduit by the relatively low pressure to mix with the water stream and form a mixed stream (see column 3,

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line 55 through column 4, line 28). McDougall further shows the control valve including a push-button (43) being depressible to seat a valve closure (inner portion of button 43; see Figure 2) on a seat (44) to thereby close the passage, the push button being spring loaded (45) to unseat the valve closure from the seat (see column 3, lines 10-22). Still further, McDougall shows the outlet being spanned by a mesh gauze (55). McDougall also shows the first inlet having a threaded connection to a faucet (see Figure 2), and a portion (25) of the body having an outer surface with opposing flat sides (31), at least a portion of which are located below the second inlet and the passage, and which are clearly capable of being engaged by a spanner or similar tool to facilitate threaded connection of the first inlet to the faucet (see Figure 3; and column 2, lines 49-51).

However, McDougall does not expressly disclose including an aerator with the device to introduce air into the stream. Further, McDougall does not expressly include a "fixed orifice" flow control nozzle which is fitted releasably/replaceably in the inlet spigot to control the flow of the dosing liquid therethrough. McDougall also does not expressly include a non-return valve in the second inlet between the flow control nozzle and the main flow conduit, the non-return valve comprising a valve seat in the inlet spigot, a ball in the inlet spigot and a spring which urges the ball in a direction toward the flow control nozzle to seat the ball on the valve seat. Also, McDougall shows the body comprising a plurality of assembled parts, rather than a "one-piece" body.

As to the aerator recitations, it should first be noted that faucet outlet mounted aerators are well known in the art for introducing air into a flowing stream in order to, for example, promote a softer exiting flow, as desired by the user. Aghnides (see Figure 2) teaches a faucet

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aerator (208) attached to and concealed within an outlet portion (202) of a faucet (200) for introducing air into a flowing liquid stream, the aerator being placed just upstream of a mesh gauze (236). As would be recognized by one having ordinary skill, the main purpose of the aerator shown by Aghnides is to soften the exiting flow from the faucet, as desired by the user.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include an aerator, such as that shown by Aghnides, just upstream of the mesh gauze shown by McDougall, in order to introduce air into the flowing stream, to thus create a softer exiting flow, as desired by the user.

As to the flow control nozzle recitations, Walker (see Figure 2) shows a water faucet assembly with a venturi (32) for introducing a dosing liquid to a flowing water stream, including a connection from a source of the dosing liquid to the venturi, wherein the connection includes an inlet spigot (33) to which a conduit (no reference number, but clearly shown in Figures 1 and 2) leading from the source of the dosing liquid can be connected, and a flow control nozzle (38) which is releasably/replaceably fitted in the inlet spigot to control/regulate the flow of the dosing liquid therethrough (see column 3, lines 32-37). With respect to the "fixed orifice" limitation, the flow control nozzle shown by Walker includes at least one orifice (such as at the downstream end of the flow control nozzle) of an unchangeable or "fixed" size.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the flow control nozzle arrangement as taught by Walker, with the inlet spigot shown by McDougall, in order to provide the user a means to control/regulate the flow of dosing liquid to the zone of reduced cross-section.

As to the non-return valve recitations, Walker, although not shown, expressly teaches that a non-return valve may be provided (see column 3, lines 31-32). As would be recognized by one having ordinary skill, non-return valves are well known for preventing backflow, and one having ordinary skill would readily recognize that such backflow prevention would be most advantageous between the flow control nozzle and the main flow conduit such that dosing liquid mixed with the main liquid stream cannot flow back into the flow control nozzle and back to the dosing liquid source.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a non-return valve, as taught by Walker, in the second inlet of the device shown by McDougall, between the flow control nozzle and the main flow conduit, as modified above, in order to prevent undesired backflow of dosing liquid mixed with the main liquid stream back into the flow control nozzle and back upstream to the dosing liquid supply source, as is well known in the art.

As to the non-return valve being specifically one which comprises a valve seat, a ball and a spring, although Walker is silent as to the specific structure of the disclosed non-return valve, the Examiner takes Official Notice that it is common and well known in the art to employ spring-biased ball valves as non-return valves (i.e. one-way valves, check valves, etc.). Spring-biased ball valves are known to be inexpensive, reliable and readily available non-return valves in the art. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a spring-biased ball valve as the non-return valve in the device of McDougall as modified above by Walker, since, at the time the invention was made, spring-

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biased ball valves were known as inexpensive, reliable and readily available non-return valves in the art.

As to the recitations with respect to the body comprising a "one-piece" body, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the multiple part body of McDougall from one piece, since it has been held that forming in one piece an article which has formerly been formed in more than one piece and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Response to Arguments

3. Applicant's arguments, see pages 5-8 of the "Remarks" section of the response filed August 29, 2007 have been fully considered but they are not persuasive.

Applicant first asserts (see last paragraph on page 5 through the first 5 lines on page 6) that the recitations with respect to a "one-piece body" distinguish claim 1 over the applied prior art. It is believed that this argument is adequately addressed in the rejection of the corresponding claim(s), set forth above under paragraph 2 of this office action.

Applicant also asserts (see second paragraph on page 6), "the Examiner is mistaken in saying that the aerator is included in the dosing device of the present invention merely to soften the flow exiting from the faucet, since this ignores the important function of enhancing the mixing process". It is submitted that Applicant's assertion is in error. The Examiner's explanation with respect to softening the water flow was a generic statement regarding one of the well-known motivations in the art for including an aerator in a water faucet (see the last 4 lines of page 3 of the office action mailed May 11, 2007). This statement was made in order to

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establish a motivation for such a modification, as would have been obvious at the time the instant invention was made. The question as to whether or not this is the reason for including an aerator in Applicant's invention is irrelevant. The fact that Applicant uses an "aerator" for a (purportedly) different purpose does not alter the conclusion that its use in a prior art device would be *prima facie* obvious.

Applicant also asserts (see third paragraph on page 6 through the first two lines of page 7) that the configuration of the inlet spigot and fixed orifice flow control nozzle, as now claimed, distinguishes over the prior art. It is believed that this argument is adequately addressed in the rejection of the corresponding claim(s), set forth above under paragraph 2 of this office action.

Further, Applicant asserts (see last paragraph on page 7 through all of page 8) that newly added claim 9 is patentably distinguishable over the prior art because of the recited "non-return" valve. Specifically, Applicant argues that none of the prior art relied upon includes disclosure with respect to why the incorporation of a non-return valve would be advantageous. It should first be noted that the prior art relied upon by the Examiner (see Walker patent) expressly includes a non-return valve, as set forth above under paragraph 2 of this office action, and as previously set forth in paragraph 5 of the office action mailed May 11, 2007. Also, as explained above, although the prior art is silent as to specific advantages of including a non-return valve, it would be recognized by one having ordinary skill that non-return valves are well known for preventing backflow. In fact, the sole purpose of including a non-return valve in any fluid-handling device is to prevent fluid from returning back upstream towards its source, hence the name "non-return" valve.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

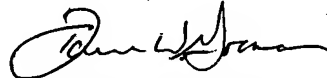
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Darren W Gorman
Examiner
Art Unit 3752



DWG
October 16, 2007